

web and dropped it on the ground. The butterfly was abundant in the month of November. On 3rd December 1985 I again visited the same area and cleared the area underneath the spider web in order to count the daily trapped butterflies. But due to area clearance butterflies were not entangled on the web.

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V. NATARAJAN

32. NEW DISTRIBUTIONAL RECORDS OF DICOTS FOR PUNJAB STATE (INDIA)

I have been engaged in the study of the flora of Punjab State ever since July 1963. Consequently, detailed distributional and ecological accounts along with the lists of sedges (Sharma 1979, 1980), grasses (Sharma 1983 a, b) and the rest of the monocots (Sharma 1985) have been published. The study of the dicotyledonous plants collected by me during the last 22 years from Punjab shows that 16 species recorded here have not been reported earlier from this area. It may not be out of place to mention that these have not been recorded even by Nair (1978) in his comprehensive and the latest floristic work dealing with Punjab. He has accounted for 1064 taxa of spermatophytes and has taken into account all the previous publications pertaining to the flora of Punjab as well as the pertinent exsiccata conserved in the herbaria of Forest Research Institute, Dehra Dun (DD) and Botanical Survey of India, Dehra Dun (BSD).

Listed below are 16 species of dicots distributed among as many genera and 13 families. But for the minor modifications to conform to the present day circumscription and deli-

neation, the arrangement of the families here is the same as in Hooker (1872-1888). Disposition of genera, however, is alphabetical under the pertinent family. All specimens cited presently are housed in Herbarium Punjabi University, Patiala (PUN).

CRUCIFERAE

Capsella bursa-pastoris (Linn.) Medik.

Occasionally found in cultivated fields.

Fl. & Fr.: January-April.

Specimens examined: Ropar, M. Sharma 8992.

VIOLACEAE

Viola cinerea Boiss. var. **stocksii** (Boiss.) Beck.

Some plants were gathered from rocky slopes of the hill. This taxon was treated under *V. cinerea* by Hook. f. & Thoms. (in Hook. f. 1872). However *V. cinerea* is a slaty white perennial, whereas the present taxon is a glabrescent annual.

Fl. & Fr.: February-April.

Specimens examined: Ropar Shivaliks, M. Sharma 10493.

AIZOACEAE

STERCULIACEAE

Waltheria indica Linn.

Very rare, only one plant seen.

Fl. & Fr.: August-December.

Specimens examined: Ropar, M. Sharma, 10441.

RHAMNACEAE

Helinus lanceolatus Wall. ex Brand.

Locally common in Shivaliks.

Fl. & Fr.: November-May.

Specimens examined: Nangal, M. Sharma 8961.

Ziziphus oxyphylla Edgew.

Rare, on a hill slope.

Fl.: May-June.

Specimens examined: Nangal Shivaliks, M. Sharma 8991.

ONAGRACEAE

Ludwigia octovalvis (Jacq.) Raven subsp. *sessiliflora* (Mich.) Raven

Occasionally found along water courses in the foot-hill zone of the State.

Fl. & Fr.: March-November.

Specimens examined: Chamkaur Sahib, M. Sharma 10407.

CUCURBITACEAE

Luffa acutangula (Linn.) Roxb. var. *amara* (Roxb.) Cl.

On roadside bushes and hedges in the drier parts of the State.

Fl. & Fr.: August-October.

Specimens examined: Jhunir, M. Sharma 11721.

Mollugo stricta Linn.

Locally common in fallow fields, along the edges of cultivated fields or irrigation channels. In Indian taxonomic literature, this taxon has often been treated as conspecific with *M. pentaphylla* Linn. According to Sivarajan & Usha (1983) these two Linnaean species are distinct.

Fl. & Fr.: August-October.

Specimens examined: Rajpura, Sirhind, Sanour, Patiala, Chamkaur Sahib; M. Sharma 1412, 1527, 1558, 1605, 10322.

CONVOLVULACEAE

Ipomoea sindica Stapf.

Common in the semi arid areas of the State in cultivated sandy fields and among hedges.

Fl. & Fr.: August-November.

Specimens examined: Mansa, M. Sharma 11441.

SCROPHULARIACEAE

Bacopa procumbens (Mill.) Greenm.

A native of tropical America. It is found on moist ground.

Fl. & Fr.: March-May.

Specimens examined: Ropar, Nangal; M. Sharma 10508, 10557.

Lindernia multiflora (Roxb.) Mukerjee

Plentiful in rice-fields along Chamkaur Sahib-Bela Road.

Fl. & Fr.: August-October.

Specimens examined: Bela, Chamkaur Sahib; M. Sharma 10460, 10483.

Veronica persica Poir.

Rare, some plants gathered from the foot-hills.

Fl. & Fr.: March-May.

Specimens examined: Nangal, M. Sharma 9185.

ACANTHACEAE

Justicia diffusa Willd.

Rare, in a 'cho'-bed.

Fl. & Fr.: August-November.

Specimens examined: Anandpur Sahib, M. Sharma 10446.

LABIATAE

Scutellaria repens Buch.-Ham. ex D. Don

Common near Bhakra Dam site.

Fl. & Fr.: August-November.

Specimens examined: Bhakra Dam, Nangal Shivaliks; M. Sharma 3229, 8962.

POLYGONACEAE

Rumex hastatus D. Don

Very common at Nangal along the banks of river Sutlej.

Fl. & Fr.: October-March.

DEPARTMENT OF BOTANY,

PUNJABI UNIVERSITY,

PATIALA 147 002,

August 30, 1985.

Specimens examined: Nangal, M. Sharma 8963.

MORACEAE

Ficus hederacea Roxb.

Rare.

Receptacles: Appear in March but mature in August-September.

Specimens examined: Faridkot, M. Sharma 11742.

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M. SHARMA

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